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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,638	07/11/2001	Ingo Boeckmann	11150/30	2366
26646	7590	08/03/2004	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004			WOZNIAK, JAMES S	
			ART UNIT	PAPER NUMBER
			2655	

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/807,638	Applicant(s) BOECKMANN ET AL.	
	Examiner James S. Wozniak	Art Unit 2655	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 7/11/2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 11-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/16/2001</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because the term “multilingual” is not used properly (*for example, Page 3, Line 26*). “Multilingual” is well known in the art as indicating multiple language support, which is not disclosed or suggested by the specification. Terminology that indicates --multiple speakers-- or --multiple speaking voices-- should be substituted.

Also, the term “voice recognition” is misused for what nowadays is called --**speech recognition**-- in the speech signal processing art. While “voice recognition” and “speech recognition” were both once used interchangeably to refer to spoken word recognition, nowadays these two terms are distinguished. The term “**voice** recognition” now denotes identification of *who* is doing the speaking (class 704/246), while “**speech** recognition” (or “**word** recognition”) denotes identification of *what* is being said (class 704/251). So, appropriate correction to the proper terms of art is required (*for example, Page 5, Line 6*).

Appropriate correction is required.

### *Claim Objections*

2. **Claim 19** is objected to because of the misuse of the term “voice recognition” for the same reasons noted above in the specification objection.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 11-13, 15, 17, 18, and 21** are rejected under 35 U.S.C. 102(b) as being anticipated by Neuhaus et al (*U.S. Patent: 5,012,221*).

With respect to **Claims 11 and 21**, Neuhaus recites:

Storing the at least one of information and status messages relating to a voice output in a speech memory (*phrases stored in a ROM, Col. 7, Lines 26-34*);

Selectively reading the at least one of information and status messages by a processing device (*reading phrases stored in a ROM using a digital synthesizer, Col. 7, Lines 26-34*); and

Outputting the at least one of information and status messages on an output device using an intonation in accordance with a relevance (*outputting a phrase having an altered pitch according to an amount of urgency, Col. 10, Line 65- Col. 11, Line 10*).

With respect to **Claim 12**, Neuhaus discloses:

The output device includes a loudspeaker (*speaker, Col. 10, Line 65- Col. 11, Line 10*).

With respect to **Claim 13**, Neuhaus discloses:

Information and status messages requiring immediate action are output in the outputting step using a command intonation (*increased pitch (sharper tone) for increased urgency, Col. 10, Line 65- Col. 11, Line 10, which would be a functional equivalent of a command tone*).

Art Unit: 2655

With respect to **Claim 15**, Neuhaus recites:

Information and status messages requiring immediate action are output in the outputting step in a harsh manner (*increased pitch for increased urgency, Col. 10, Line 65- Col. 11, Line 10*).

With respect to **Claim 17**, Neuhaus discloses:

Increasing the intonation and a connotation of the at least one of information and status messages requiring immediate action in accordance with importance (*increasing pitch to suggest an increased level of urgency to observers, Col. 10, Line 65- Col. 11, Line 10*).

With respect to **Claim 18**, Neuhaus recites:

Varying the intonation with a decreasing connotation for the at least one of information and status messages not requiring immediate action (*decreasing pitch to suggest a lowered level of urgency to observers, Col. 10, Lines 20-28*).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 14 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Neuhaus et al in view of Tsunoda (*U.S. Patent: 4,359,713*).

With respect to **Claim 14**, Neuhaus teaches the method of pitch alteration of a phrase waveform, as applied to Claim 11. Neuhaus does not teach that messages requiring immediate action are output at a higher volume level, however, Tsunoda discloses:

Information and status messages requiring immediate action are output in the outputting step at a high volume (*urgent message regarding fuel information output with a louder voice volume, Col. 5, Lines 16-41*).

Neuhaus and Tsunoda are analogous art because they are from a similar field of endeavor in speech waveform modification. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine the volume adjustment means for important information taught by Tsunoda with the method of pitch alteration of a phrase waveform taught by Neuhaus to increase the likelihood that an observer will hear an important warning message. Therefore, it would have been obvious to combine Tsunoda with Neuhaus for the benefit of ensuring that an observer will hear an important warning message.

With respect to **Claim 16**, Neuhaus teaches the method of pitch alteration of a phrase waveform, as applied to Claim 11. Neuhaus does not teach that a speaker voice may be changed for urgent information and status messages, however, Tsunoda recites:

Changing the speaking voice, by selecting from a plurality of speaking voices, for information and status messages requiring immediate action (*different speaking voices for enabling a user to distinguish information in a warning message, Col. 7, Lines 49-68*).

Neuhaus and Tsunoda are analogous art because they are from a similar field of endeavor in speech waveform modification. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine the means of changing speaker voices in

outputting a warning message taught by Tsunoda with the method of pitch alteration of a phrase waveform taught by Neuhaus in order to allow a user to more easily distinguish a warning message from other background noises. Therefore, it would have been obvious to combine Tsunoda with Neuhaus for the benefit of improving the likelihood that a user will recognize a warning message requiring immediate action.

7. **Claim 19** is rejected under 35 U.S.C. 103(a) as being unpatentable over Neuhaus et al in view of Gulau et al (*U.S. Patent: 5,584,052*).

With respect to **Claim 19**, Neuhaus teaches the method of pitch alteration of a phrase waveform, as applied to Claim 11. Neuhaus does not specifically suggest an additional step of controlling an electrical device using speech recognition, however, Gulau recites:

Controlling the at least one electrical device using speech recognition (*controlling various vehicle functions using a speech recognition engine, Col. 2, Lines 30-64*).

Neuhaus and Gulau are analogous art because they are from a similar field of endeavor in speech processing in an automotive application. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine the use of a speech recognition engine to control various vehicle functions as taught by Gulau with the method of pitch alteration of a phrase waveform taught by Neuhaus to provide a hands-free and convenient means for speech message system control. Therefore, it would have been obvious to combine Gulau with Neuhaus for the benefit of providing a convenient user interface.



8. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Neuhaus et al in view of Marx et al (*U.S. Patent: 6,173,266*).

With respect to **Claim 20**, Neuhaus teaches the method of pitch alteration of a phrase waveform, as applied to Claim 11. Neuhaus does not teach the use of alternative messages or the change in dialog state supplied when a user fails to respond, however Marx discloses:

Successively outputting alternatives of the information and status messages in response to a failure to interact until an interaction occurs (*prompts and re-prompts provided until a threshold number of recognition errors or timeouts occurs, Col 13, Line 40- Col. 14, Line 8*).

Changing a dialog-communication level in response to a failure to interact with a last of the successive alternatives (*fallback and termination steps upon successive timeouts, Col. 13, Line 40- Col. 14, Line 8, and Fig. 6*).

Neuhaus and Marx are analogous art because they are from a similar field of endeavor in providing speech-based messages and information to a user. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine the method of providing multiple prompt attempts in varying forms to a user that implements fallback and termination steps upon successive interaction failures as taught by Marx with the method of pitch alteration of a phrase waveform taught by Neuhaus in order to verify that a user has heard a speech output and take appropriate actions if a user does not respond. Therefore, it would have been obvious to combine Marx with Neuhaus for the benefit of providing a means of verifying that an observer has heard a speech output so that appropriate action can be taken.

***Conclusion***

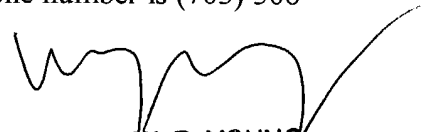
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Fukaya (*U.S. Patent: 4,760,245*)- teaches a method of repeating a prompt and increasing prompt volume if a user does not respond.
- Letzt et al (*U.S. Patent: 5,612,869*)- discloses a method that increases a speech output volume if a user does not respond to a prompt.
- Light et al (*U.S. Patent: 6,598,045*)- teaches a means of adjusting an audible alarm volume based upon relevance.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (703) 305-8669 and email is James.Wozniak@uspto.gov. The examiner can normally be reached on Mondays-Fridays, 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached at (703) 305-4827. The fax/phone number for the Technology Center 2600 where this application is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology center receptionist whose telephone number is (703) 306-0377.

  
W. R. YOUNG  
PRIMARY EXAMINER

James S. Wozniak  
7/22/2004